

PARENT KNOWLEDGE, BELIEFS AND NON-PRESCRIBED USE OF ANTIBIOTICS FOR CHILDREN IN THE REPUBLIC OF MACEDONIA – BASELINE STUDY



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Introduction

The AMR related to the irrational use of antibiotics is a major global public health problem. Irrational use includes self medication, i.e. use of antibiotics purchased from pharmacies without prescription, or left-over antibiotics from previous treatment courses. Children are particularly prone to high rates of antibiotic use for viral URTI or non-specific diarrhoea. WHO has called for global comprehensive action against AMR, including measures to tackle public misconceptions surrounding antibiotics, and to raise awareness on its appropriate use.

In Macedonia, antibiotics are classified as prescription-only medicines, but OTC sales might be expected as in other South-Eastern European countries. Our 2012 survey on general population reported relatively low level of public knowledge about antibiotics and URTI. We found that 71% of respondents stored antibiotics at home, 43% purchased OTC antibiotics, and 18% of adults used non-prescribed antibiotics for URTI in the last year. No significant association between demographic factors and self-medication was found.

in late 2014, the government will launch a national campaign to raise public awareness on appropriate use of antibiotics, decrease demand for antibiotics, and discourage non-prescribed use. The intervention consists of 1) series of educational courses with parents in kindergartens on proper antibiotic use, and 2) simultaneous nationwide media campaign.

Study aim

- to determine baseline level of parent knowledge, beliefs and non prescribed use of antibiotics in children.
- to identify factors associated with non prescribed use of antibiotics in children.

Study methods

The cross-sectional study was conducted in 3 regions in Macedonia in May 2014, with a questionnaire to interview parents of children younger than 15 years.

We used descriptive quantitative statistics (f, %), as well as Student t-test and Mann-Whitney tests.

Results

DEMOGRAPHICS

403 parents interviewed (average age 33 years, 76% females and 72% urban residents)
Their children were on average 6,9 years old (48% <5 years, 45% females, 45% with siblings)

KNOWLEDGE, BELIEFS, INFORMATION

Figure 1: Parent knowledge on antibiotics (%)

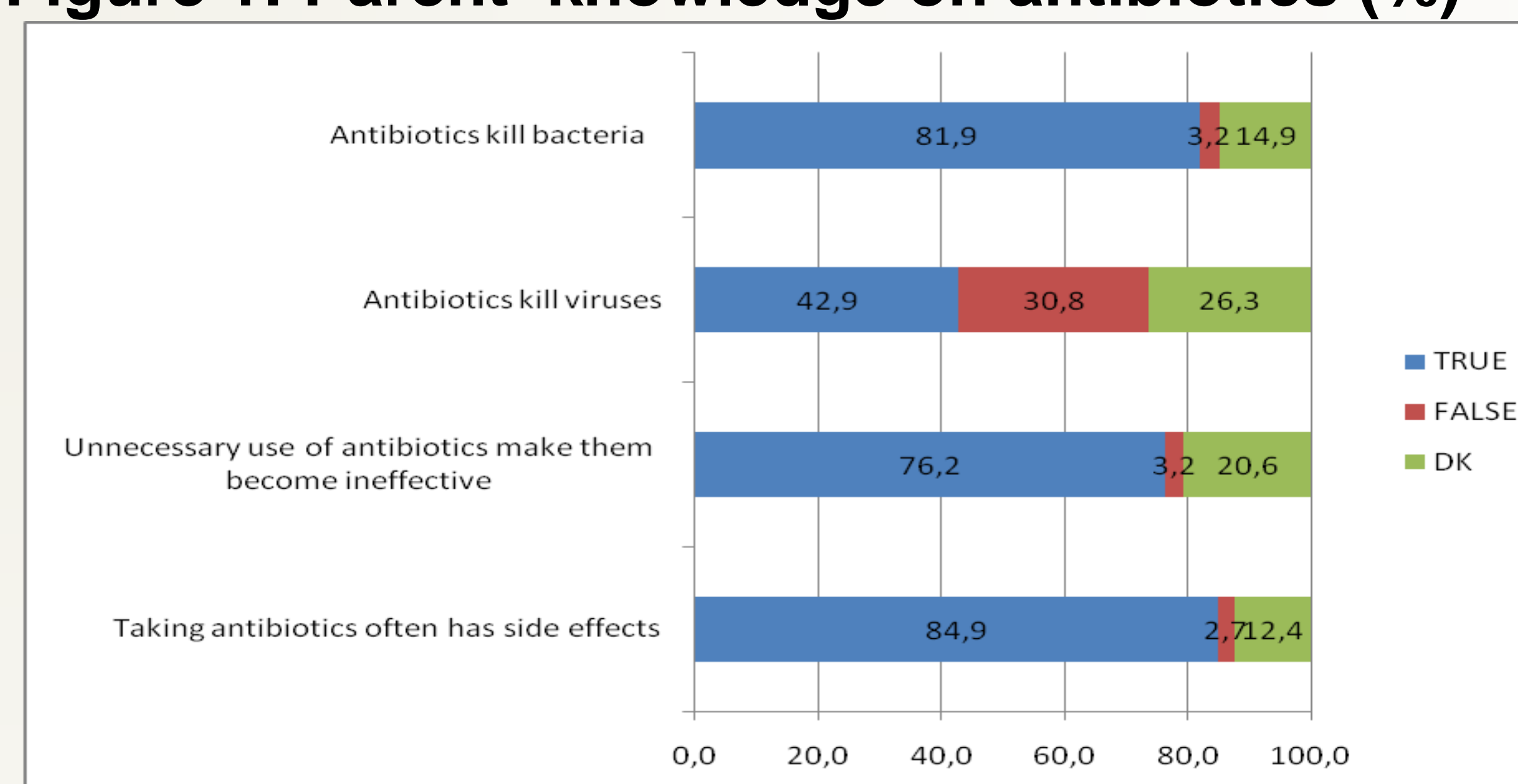


Figure 2: Parents' expectations on URTI symptoms that improve faster with antibiotics (%)

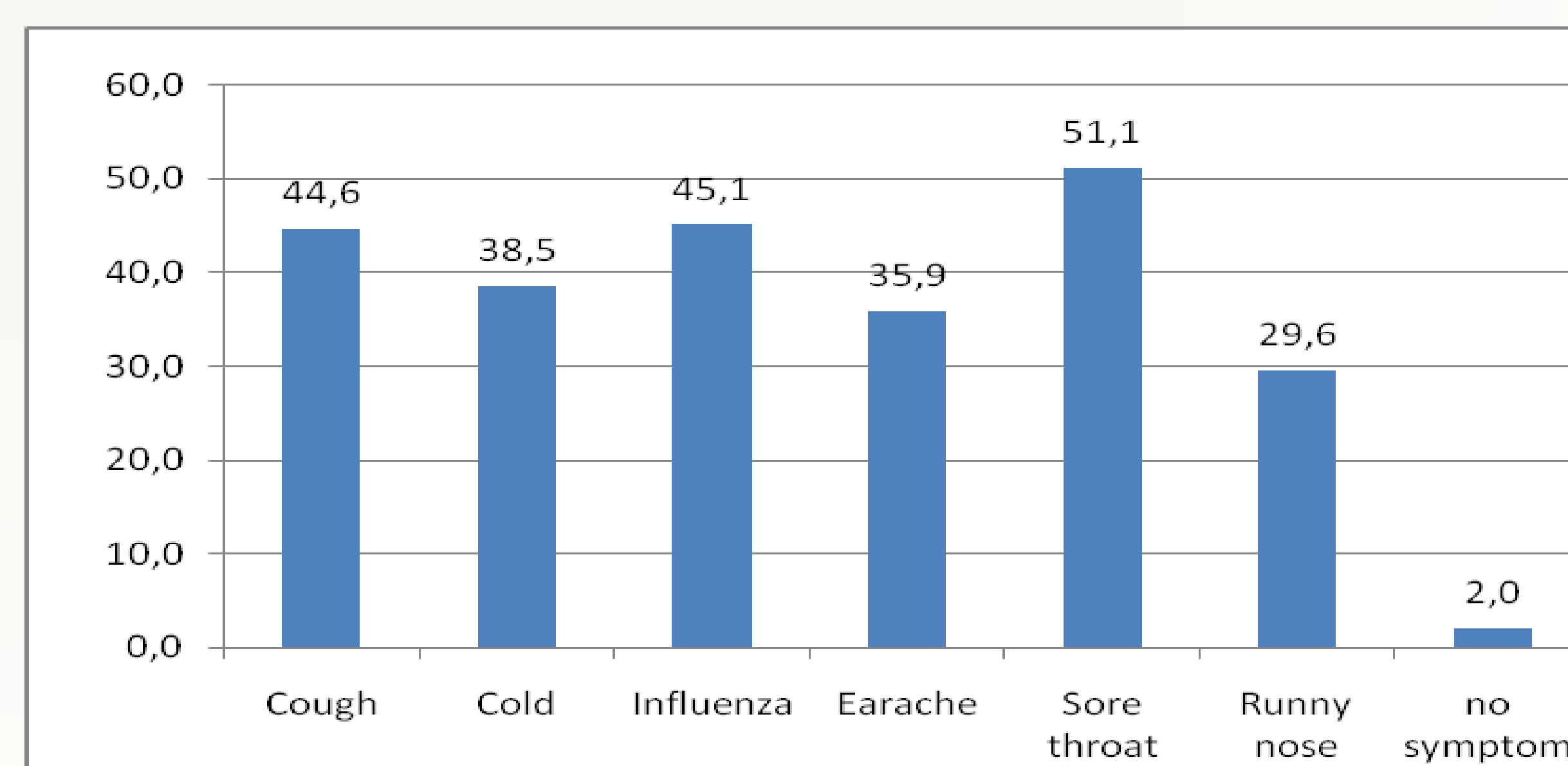
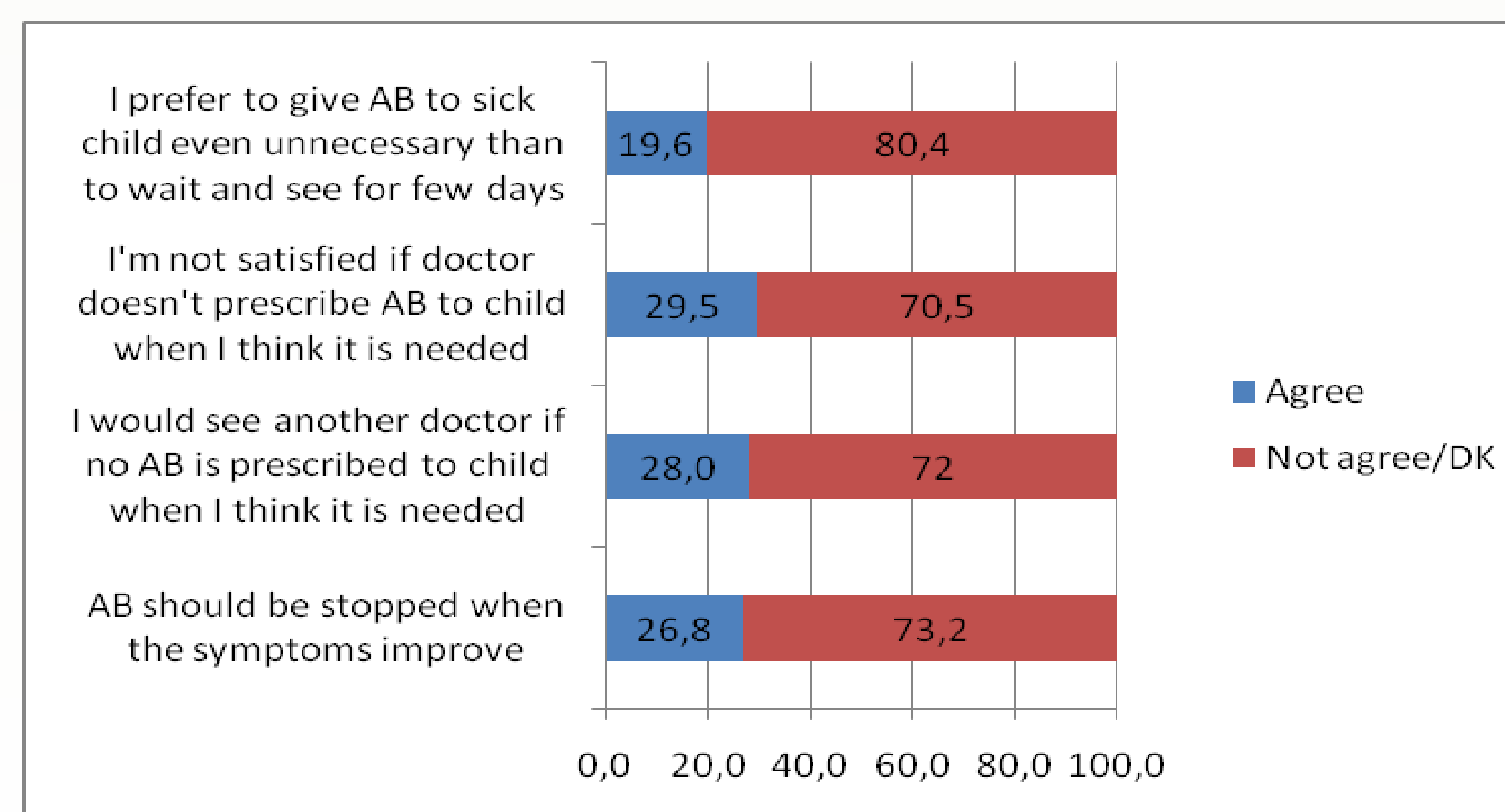


Figure 3: Parent attitudes towards AB prescribing and use (%)



65% of parents received information about not taking any antibiotics unnecessarily.

Their source of information were: 38% - doctor, 28% - pharmacist, 25% - radio/TV, 25% - internet

Results (continued)

PRACTICE OF THE USE OF ANTIBIOTICS

Patterns of obtaining antibiotics

CHILDREN: 89% by MD prescription, **6% OTC purchase from pharmacies**, **5% left-over**
PARENT: 79% by MD prescription, **9% OTC purchase from pharmacies**, **11% left-over**

Figure 5: Reasons for children' last taking antibiotics in the last year (n=319)

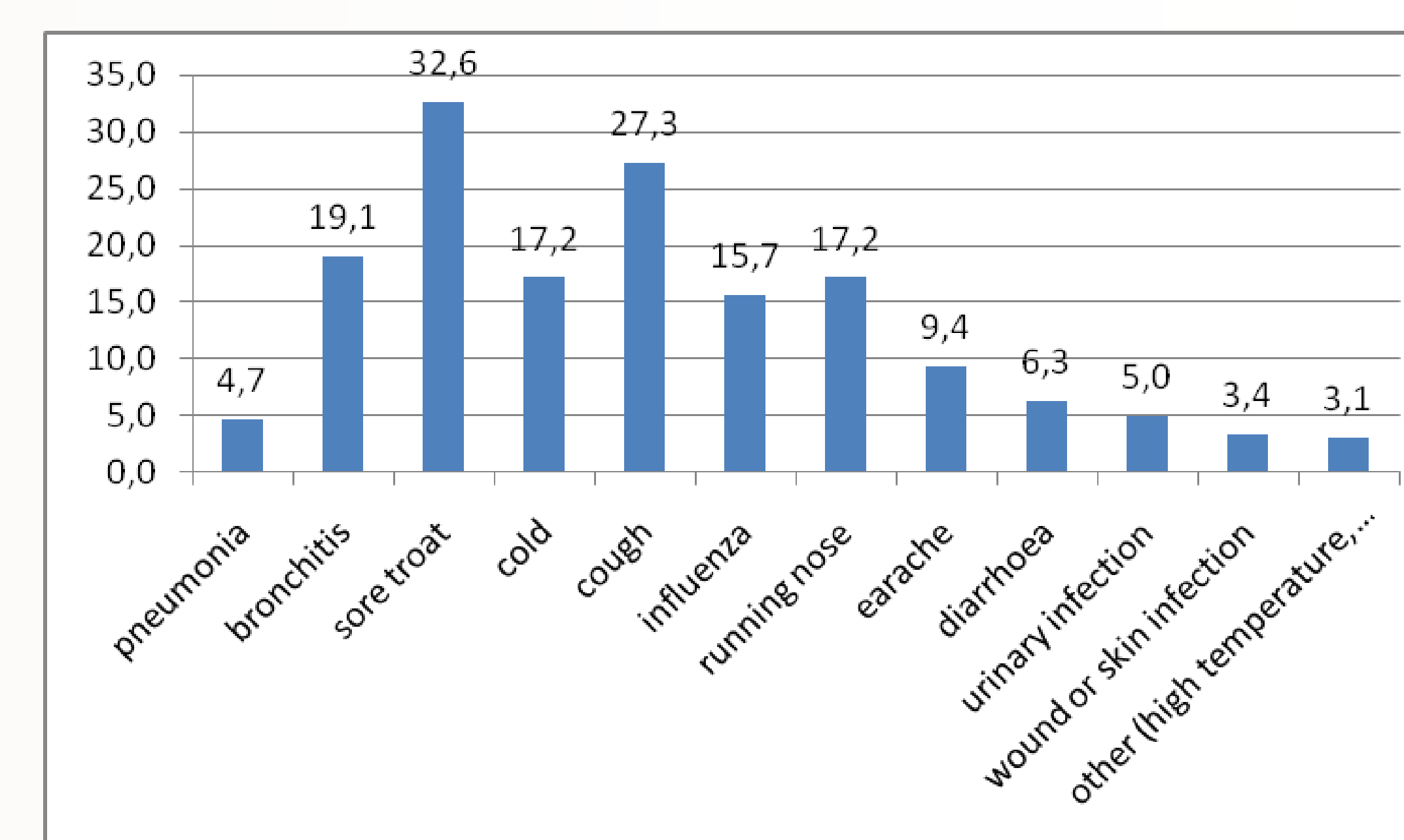
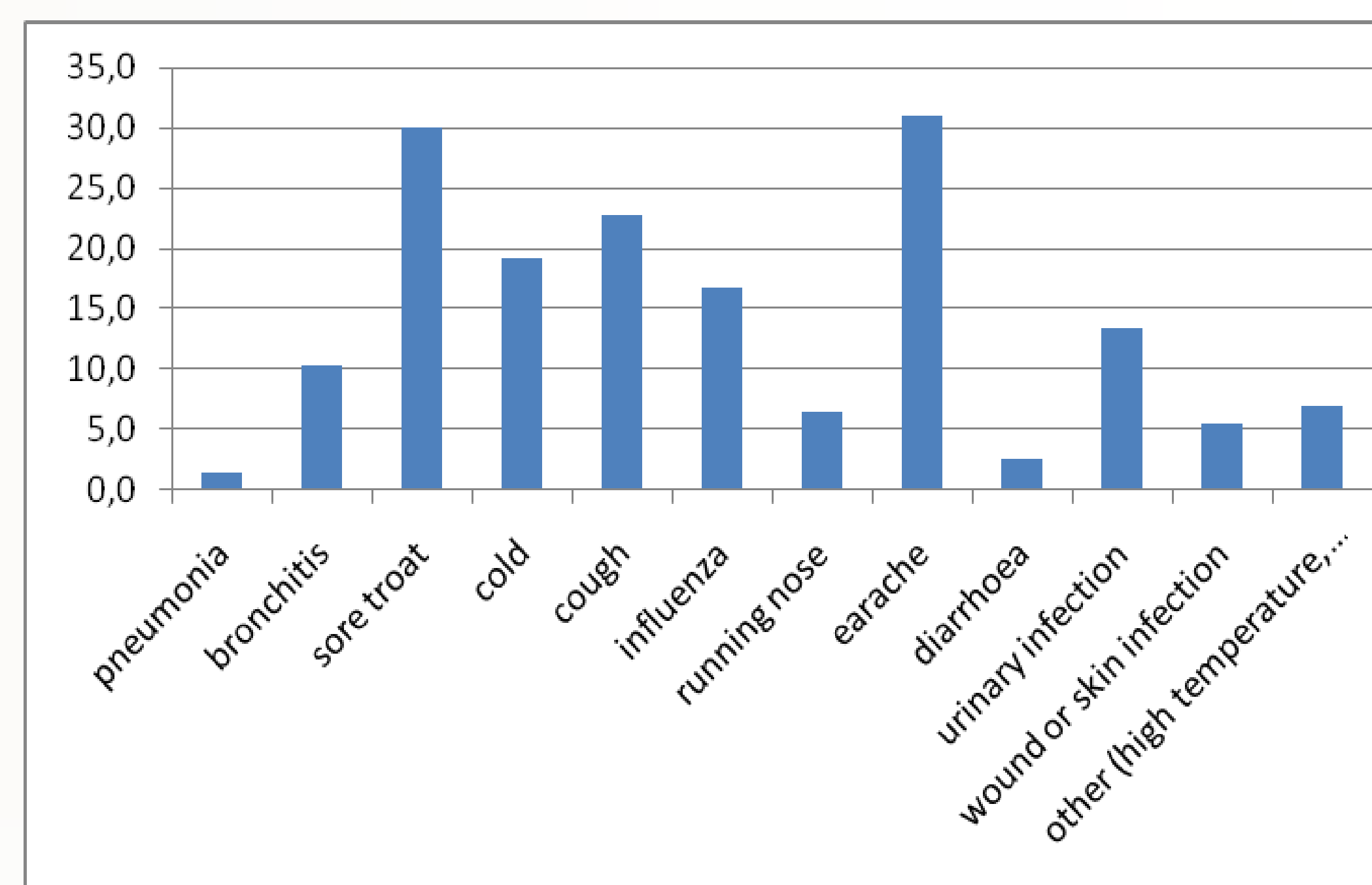


Figure 7: Reasons for parent last taking antibiotics in the last year (n=203)



Discussion

This study shows relatively high prevalence of antibiotic self-medication in the country, especially among the adult population (parents). Main causes for self-medication with antibiotics in the cuntry seem to be : poor regulations of restricted prescription-only use (or inadequate enforcement of existing policies), and patients' misconceptions about the efficacy of antibiotics for minor ailments.